U.S. Department of Transportation

Intelligent Transportation Systems Standards Fact Sheet

July 2000

IEEE Std 1488 - 2000 Trial-Use Standard for Message Set Template for Intelligent Transportation Systems

Overview

The data that are exchanged among intelligent transportation systems (ITS) are organized into messages. Messages contain basic units of data (called data elements) and include information about how the data elements are assembled and how they are to be interpreted. A message set is a series or set of individual messages for exchanging information about a particular topic. This standard establishes the template, or pattern, for constructing message sets.

To ensure that all ITS message sets used by ITS applications are assembled and can be interpreted in the same way, this standard, **IEEE Std 1488 - 2000, Trial-Use Standard for Message Set Template for ITS**, specifies the format and common terms and attributes for ITS message sets. Through the implementation of this standard, and other related standards, data can be unambiguously exchanged and reused by ITS systems.

To obtain a copy of this standard, please contact:

Institute of Electrical and Electronics Engineers (IEEE)
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Approved for trial use through June 2002

What is this standard for?

This message set template standard provides the basic structure, or framework, and syntax for specifying message sets. Different message sets are associated with different ITS subsystems. Other standards define the actual message sets. The contents of the message set are data concepts and data elements that are contained in separate ITS data dictionary standards. Message sets define the mandatory components of messages as well as their grouping, sequence and other requirements for creating messages. Actual messages that are exchanged by ITS applications contain specific values of the data elements within the messages.

Who uses it?

This standard is intended for use by information technology professionals, message set developers, and communications and transportation engineers who are involved in developing, specifying, or using ITS messages, as well as the various technical approaches, protocols and technologies involved in the logical (as opposed to physical) implementation of ITS messages.

How is it used?

This standard is used as a reference or guide to assist system or subsystem deployers who are creating ITS message sets.

Scope

This standard specifies attributes for documenting messages used to transfer information between computer-based ITS applications. This standard does not define physical implementations of messages, nor does it define particular uses, or establish the requirements for specific configurations of communications protocols or networks.

Related documents

The IEEE Standard Dictionary of Electrical and Electronics Terms, Sixth Edition

IEEE Std 1489-1999 – Standard for Data Dictionaries for Intelligent Transportation Systems

ISO/PRF-TR-14813-6 – Transport Information and Control Systems (TICS) - Reference Model Architecture(s) for the TISC Sector, Part 6: Data Presentation in ASN.1

ISO/IEC 8824-1:1998 -- Information Technology - Abstract Syntax Notation One (ASN.1): Specification of Basic Notation

ISO/IEC 8824-2:1998 -- Information Technology - Abstract Syntax Notation One (ASN.1): Information Object Specification

ISO/IEC 9834.1:1993 – Information Technology - Open Systems Interconnection, Procedures for the Operation of OSI Registration Authorities: General Procedures

For more information on ITS standards, contact the Federal Highway Administration, ITS Joint Program Office, Room 3401, HOIT, 400 7th Street, SW, Washington, DC 20590, phone: 202-366-2180, fax: 202-366-3302, Web site: www.its-standards.net

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